NUCLEAR DIVISION NEWS

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 2 - No. 20

Thursday, November 25, 1971



ACCEPTS IR-100 AWARD—Representatives from the Molecular Anatomy (MAN) Program accept the IR-100 award from R. F. Hibbs, President of the Nuclear Division. The automated device which analyzes body fluids was selected as one of the 100 most significant new technical products of 1970 in competition sponsored by Industrial Research, Inc. From left are, Norman G. Anderson, MAN director; Charles D. Scott; Hibbs; Wayne F. Johnson; and W. Wilson Pitt, Jr.

United Fund Contributions Will Aid in Several Areas

"Thank you." These words are. leaders and solicitors throughout the Nuclear Division. They are spoken because of the generosity with which the employees of the Division gave. And the "thank you" grows very loud when one considers how many times it will be expressed by thousands of area people who will benefit throughout the coming year from the dollars which each employee cared enough to give.

College Winter Quarter

Course schedules have been announced for college credit classes to be held in Building 9709 during the Winter Quarter in the Oak Ridge Y-12 Plant.

Tentative courses for The University of Tennessee will be to an effective campaign in chal-Drafting 4070, 71, 72 and 73; lenging each employee to consider Physical Testing 4044, Machine Shop Practices 1220, Sheet Metal Practices 1230, Numerical Control 4091, Conference leadership 4110, Welding 3050, and English 2131. Registration will be held January 4, 5, at Oak Ridge High School.

Courses to be offered by Roane State Community College in electronics technology include Electric Circuit Fundamentals I and II and Algebra and Trigonometry II. Registration will be held January 3, at 5 p.m., in Building

The total contribution to area spoken by United Fund drive United Fund groups this year was \$343,027. Employees designated their contributions as follows: Anderson, \$186,913; Knox, \$77,833; Loudon, \$13,009; Morgan, \$7,284; and Roane, \$38,898. The remainder was designated to several other area counties.

In wrapping up the drive, Chairman Harry E. Seagren com-mented: "Many thusands of children and adults will benefit from the United Fund contributions of our Oak Ridge employees. Our gifts and pledges exceeded last year's total by six percent; over Curriculum Is Scheduled 6,000 individuals are giving the 'needed share,' and most of these have agreed to have their percentage payroll deduction continue without further authorization. I wish to thank the hundreds of solicitors who were the key his or her personal opportunity to help others, and each person who gave."

> Drive literature and signs have come down from bulletin boards, cafeterias, canteens, portals and the roadways. The generosity of area givers has been sufficient for most agencies to proceed with the full range of planned activities. However the need does not stop here. Each agency can still use your help — some of your time. some of your energy. Call an agency and volunteer.

Question Box May Be Future Feature

Do you have questions about company benefits which have been left unanswered? Are there some points you would like clarified about certain policies, or various aspects of your work? If so, Nuclear Division News may be of some assistance.

A column, "Employee Question Box" is being contemplated in future issues of the News. Here's how the new column would oper-

If you have a question, send it along to Nuclear Division News. You do not have to sign your name to your question. The News will attempt to retrieve an answer to your questions, promptly.

If you wish a personal response to your inquiry, please sign your name and indicate your work location. The person most capable desired information.

Address all inquiries to Editor, Nuclear Division News, Building 9704-2, Stop 20, Y-12 Plant.

Thanksgiving Holiday

Nuclear Division employees enjoy their first two-day holiday of the year this month, as November 25 and 26 are official days off. No employee will be required to work unless his presence is required by continuous operation or the security of the plants.

Mead Paper, Union Carbide Plan To Market Plastic Paper

of plastics has been formed by Union Carbide Corporation and The Mead Corporation. The new company, called Acroline, is AcroArt in the specialty paper owned 50-50 by the two parent area, which has an annual domesorganizations, and is the first joint tic volume of about 7,500 tons, venture in the United States by a major plastics producer and a major paper company for the marketing and development of plastic papers.

The new company's first product is a plastic paper, developed in the '60's by Union Carbide and Mead, which Mead has been marketing under its trademark, "AcroArt." AcroArt was one of the first plastic papers developed in the U.S., and is made at Union Carbide's Ottawa, Ill., plastics manufacturing facility. Acroline will intensify research and development efforts leading to the introduction of new plastic paper

Many Advantages

The joint venture will call upon the strengths of the parent organizations - Mead's marketing skill and knowledge of the paper industry and Union Carbide's technical expertise in plastics technology.

For many uses, plastic papers offer significant advantages over ordinary paper. They're strong, waterproof, smooth, highly resistant to tearing, and provide excel-lent graphic reproduction. Up to the present, the cost of plastic papers — including AcroArt — has limited their use to specialized markets such as maps, children's books, and point-of-purchase materials.

Walter S. Young, general manager of Acroline, stated, "We are confident that plastic paper has a atmospheric gases and consumer tremendous future. It has the great advantage of combining trademarks as Prestone, Glad, quality graphic reproduction with and Eveready.

A new company to develop and the strength and durability of increase markets for papers made plastic."

Market Encouraging

Young said Acroline intends to step up market penetration of and to develop products for the much larger market currently served by premium coated papers, with a yearly volume of 100,000 tons. "In fact, we believe that plastic paper will eventually compete with regular printing papers across a broad spectrum of uses," he predicted.

James D. Richardson, sales manager of Acroline, noted that Mead's strength in distribution represents an important advantage in marketing plastic papers.
"Mead has more than 150 franchised merchant distributors over the country," he said. "These companies know their markets and they'll be able to spot new opportunities for the use of plastic papers."

Sales Volume

Mead, with sales of more than \$1 billion a year, is a diversified manufacturer of paper, packaging, educational supplies, furniture, precision castings, pipe and construction materials. The company has more than 100 plants in the U.S., as well as operations in Canada, Western Europe, Lebanon and Japan.

Union Carbide, a worldwide organization, serves markets in over 100 countries with nearly 500 plants, mines, mills, and lab-oratories. It had sales in 1970 of over \$3 billion. The Corporation produces chemicals, plastics, alloys, metals, electronic products, earbon products, industrial and products sold under such familiar

'Very Effective' Air Pollution Control Seen in Development

now marketing two new, extraordinarily effective air pollution control processes for the nitric and sulfuric acid industries. These processes economically reduce nitrogen oxide and sulfur dioxide emissions to as little as one-fif-teenth of recently proposed Federal Standards.

The Environmental Protection Agency recently published air pollution control standards for permissible oxide levels discharged to the atmosphere from of answering your question will new nitric and sulfuric acid get in touch with you with the plants. The proposed levels are three pounds of nitrogen oxide per ton of nitric acid produced and four pounds of sulfur dioxide per ton of sulfuric acid produced. In both cases, Union Carbide's processes—called PuraSiv-N and PuraSiv-S — reduce oxide levels to less than five ounces per ton of acid produced, surpassing any known commercial removal process for these industries.

> In addition to being environmentally more effective, total treatment costs of the new processes per ton of acid is less than other methods.

Union Carbide Corporation is. The new processes use the unique adsorption and catalytic properties of Linde Molecular Sieves. The Molecular Sieves developed especially for this purpose adsorb the oxides and return them to the plant to increase acid production. In the PuraSiv-N process, the Molecular Sieve also acts as a catalyst to convert NO to NO... This assures strong adsorption, and is the key to the remarkably low emission levels.

A company spokesman noted that these particular processes are applicable only to nitric acid and sulfuric acid plants and cannot be applied to solve other oxide removal problems such as power plant stack gases.

The first PuraSiv-S unit scheduled for start-up in the second quarter of 1972, will serve Coulton Chemical Company's sludge acid plant in Toledo, Ohio.

PuraSiv plants are fully automatic, can be skid mounted, or field erected, and are easy to install, start-up, and operate. They can be added to existing acid plants or built into new ones.

There are more than 350 sulfuric and nitric acid plants in the United States.



BUSY SEASON—Several retired men and women lend their talents to The Holiday Bureau in Oak Ridge, repairing, painting and sorting toys and games for children. The Bureau will distribute Christmas joy to more than 4,000 children in the

Oak Ridge area this year. Gerald Goldberg, ORNL, has been director of The Bureau for the past 12 years. Seen above in the workshop are J. B. Woodward, left, Ed Reichle, center, and James Manney, right. These men and others dedicate much of

their time in service of others. The Holiday Bureau receives part of its money from the Anderson County United Fund, the balance from donations during the holiday season. It also handles in-lieuof-Christmas-card funds.

Holiday Bureau Dispenses Cheer And More During Yuletide Season in Oak Ridge Area

Oak Ridge and Anderson County. This is the number The Holiday Bureau will be wishing a Merry Christmas beginning on Thurs-day, December 16, when the Bureau begins distributing toys to some 4,000 children in these families. This will be followed by the delivery of over 450 food baskets to the more needy of these impoverished families.

Although the Bureau is a United Fund Agency, it is permitted to raise additional operational funds through the generous donations of those groups and individuals who want to spread a little extra cheer at Christmastime. In previous years the Bu- all donors will be listed in The

installation coffee funds and Fund." group donations in-lieu-of mailing Christmas cards. Every effort is made to take care of each of the families that request assistance. Applications are screened through the Welfare Departments both in Oak Ridge and Clinton.

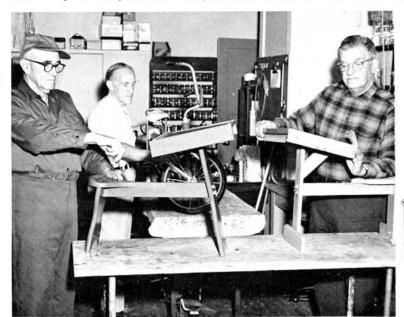
The Holiday Bureau receives \$2,500 from the United Fund. "We will have to raise an additional \$4,000 in donations to meet our expenses for this coming Christmas," said Jerry Goldberg, a chemist with the Analytical Division at the Oak Ridge National Laboratory, Bureau Chairman for the past 12 years. "The names of

Christmas will be a little early reau has depended heavily on do-Oak Ridger, as well as donors to this year for some 900 families in nations from various Carbide the in-lieu-of Christmas Cards

The money is used for the preparation of food baskets and the operation of the toy repair shop. Last year the Bureau spent some \$6,000. Extra money, when collected, is used throughout the year for emergency assistance and the operation of the repair shop. Goldberg stated that he reserves a portion of his vacation every year to supervise operations at The Holiday Bureau.

The toy repair shop and collection shop is operated by retired ORNL employee James Manney and Mrs. Gertrude Coin, along with other volunteer helpers who are already hard at work. These include retirees J. B. Woodward, from Oak Ridge Gaseous Diffusion Plant; Ed Reichle, whose son David works at ORNL; Dr. Rufus D. Wright, a former physician; and Madge Baker, whose husband Kenneth works at the Oak Ridge Y-12 Plant.

However, additional help, both skilled and unskilled, is needed at the Bureau. It is open every day, all day long .Toys, tricycles and wagons must be repaired and refinished in order to bring a little joy to many children who would otherwise do without at



RIGHTING THE WRONG—Painting and repairing are just a part of the duties at The Holiday Bureau in Oak Ridge. These retirees spend much of their spare time at the workshop. Women in the American Association of Retired Persons have recently dressed many of the dolls for The

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APPALACHIAN INDUSTRIAL EDITOR'S ASSOCIATION INTERNATIONAL ASSOCIATION OF BUSINESS COMMUNICATORS

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H. B. Hurt Relates Drug Problem at Tech Meeting

Howard B. Hurt, clinical psychologist and consultant to the Nuclear Division, spoke at a joint dinner meeting recently spon-sored by three professional socie-

Hurt, speaking on "Drugs in Industry," reviewed some of the

reasons why in-

dustry is con-

cerned about

employee abuse

what industry

has been doing

about this prob-

lem, and what

they expect

from its efforts

in the drug

substances,



Sponsoring societies were the American Institute of Industrial Engineers, Tennessee Valley Personnel Association and the Society for the Advancement of Management.



Christmas. Also needed are indi-oceive nothing," Goldberg added. viduals and groups to take home Mrs. Aurin's telephone number is one or more dolls, clean them up 483-1608. and dress them to look like new. The Bureau is located in Dennison Hall, near the Armory, on the number is 483-7831.

for those families in excess of the 450 assisted by the Bureau, a Sheriff's offices, the Clinton Volclearing house is also operated by unteer Fire Department and the Bureau with the help of Mrs. Belinda Aurin. Goldberg stated he hopes that churches and other groups that provide baskets of their own will contact Mrs. Aurin and cross check the names of the families that are being helped, or request names of families in need. "In this way we can be assured that all in need receive assistance Ridge, Tenn. 37830 . . . or send it rather than have some get three in the plant mail to Gerald Goldor four baskets, while others re- bert, at ORNL, Building 2026.

Many volunteers assist in the work. In addition to the painters, toy sorters and repairers, the food Oak Ridge Turnpike. The phone baskets are made up for the Bureau and delivered by the Ander-In order to insure food baskets son County Rescue Squad, the many individual volunteers.

> This, then, is The Holiday Bureau: many people giving of their time and money so that the less fortunate will know that someone is thinking of them during the holidays. Won't you help also? Send your donations to The Holiday Bureau, P.O. Box 220, Oak

Oak Ridge Gaseous Diffusion Plant

extension 3-3017

CONGRESSIONAL VISITS-Visitors from the U.S. House of

Representatives stop by the Overlook before touring AEC

facilities in the Oak Ridge area. Seen above are Robert G.

Jordan, ORGDP superintendent; Congressman Neal Smith,

Iowa; Congressman William Hungate, Missouri; and Sam

R. Sapirie, manager of the Oak Ridge Operations of AEC.

C. F. Mullins, J. M. Nabors, Anna White Retire after Long Service with ORGDP

Three long-time employees at ORGDP retire next week, taking with them more than 60 years of company service. Retiring are Charlie F. Mullins, Fabrication and Maintenance Division; Johney M. Nabors, Guard Department; and Mrs. Anna May Deaver White, Medical Division. 1754 71-1834

Nabors

ville 687-1778.

Mullins

Charlie F. Mullins came to ORGDP September 5, 1944 from his Mooreville, Miss. home. He worked at Leak and Goodlet Lumber Company in Tupelo and various construction jobs throughout Mississippi during his early ca-

Mrs. Mullins is the former Lavada Cayson, and they live at 707 West Outer Drive, Oak Ridge. They have two sons L. B. and Michael, and daughters Mary and Honor D., all in school.

Mullins plans to garden, fish and catch up on hunting and traveling during his retirement.

Nabors

Johney M. Nabors, another longtime ORGDPer, came here July 19, 1944. He is a native of Lancaster. He farmed and worked on the Center Hill Dam and the Timken Roller Bearing Company as an inspector of steel before coming with Carbide.

Mrs. Nabors is the former Lillie Willette Thomas, and they live at Route 3, Concord. There are three children: Mary and Freda, both married and Leonard, a guard at ORGDP, and Bill, a major in the

Nabors plans to garden, fish, raise cattle and devote a great deal of his time to church work in retirement.

Mrs. White

Mrs. Anna May Deaver White, a registered nurse in the Medical



Mrs. White Before coming with Union Carbide, she worked at Aston Park, and St. Lukes Hospital, New York City.

She plans to move back to Marshall to be with her 88-year-old mother

20 Years' Service

Harold Bowman Louise T. Burris J. Ronald Gray William K. Johnson Grady E. Lassiter Jack M. Vance Courtney L. Buskirk John D. Weaver Charles R. Read Walter E. Prater Roy G. Brown Benjamin C. Jamerson James A. Jones Charles E. Williams Hoover H. Greene

ORGDP Employee's Son Awarded Heroism Honor

Sgt. Gary S. White, son of Clifford White, recently received a medal for heroism from the Air

Sgt. White was recognized for risking his life

to save the lives of four civilian military employees stranded in a blizzard last winter in Turkey. The Air Force sergeant searched on foot through

Sgt. White a blinding snow storm to locate the civilians. The civilians were stranded and nearly frozen when White found

White's parents live in Crossville. The proud parent is in ORGDP's Machine Shop, Maintenance and Fabrication.

CHRISTMAS DANCE

"Music for Lovers" will be played at the December 11 dance for ORGDP employees. Dancing from 9 p.m. to 1 a.m. at the Civic Center. Tickets are available throughout the Plant.

SAFETY SCOREBOARD

ORGDP

Has Operated

2,747,000 Safe Hours Through November 18

Since last disabling injury on May 4



Ride wanted from Fountain

City area, to Portal 2 or 4, straight

day. Josephine Burchard, plant

phone 3-3079, home phone Knox-

LUNKER BASS-Jay Beets, 10 - year - old son of Troy Beets, Computing Technology Center, caught this five pound, four ounce largemouth bass casting a Hellbender from the bank at Newport Resort. How about



REMARKABLE ACHIEVEMENT—The Engineering Division at ORGDP saw 96 percent of its employees pledge needed share in the recent United Fund Drive! A total of 209 out of 216 employees gave the needed share. This is believed to be one of the highest counts in this area. Responsible for this achievement, to a great degree, are the above persons, seated from left, Robert C. Orrin, Ralph I. Deaderick, Lee Porter, and Domenic S. Pesce. Standing are Donald R. Kellogg, Richard W. Ulm, Andrew J. Thompson, Rodney D. Shaffer, Hugh C. Beeson, and Edward H. Bryant.

Co-Opper Successfully **Completes Course Here**

ORGDP Editor

While working as an Engineering Co-op at the Oak Ridge Gaseous Diffusion Plant, William H. Phillips successfully completed a three-week course in the Fundamentals of Planning and Estimating Fabrication and Maintenance Work. The course was conducted

nance Engineering Department, and covered detail planning of the maintenance job, communication writing, and the application of standard

by the Mainte-

Phillips time data. Employees completing the course received Certificates of Attainment.

The Co-op Program provides an excellent opportunity for selected college students to become involved in actual industrial situations by working alternate quarters in industrial plants.

Phillips is the son of Mrs. Willie Jean Phillips and the late William Manley Phillips, 704 Killebrew Street, Newton, Ala., and a junior at Auburn University, majoring in Mechanical Engineering.

> 25- Year Vets October



J M BILLINGS H L HOGAN





MARRIED Susan Effie Pitts, daughter of R. A. Pitts, Buildings Department, was married recently to Carl Victor Stock, Jr. at the First United Presbyterian Church, Oak Ridge. They are living in Oak Ridge, where the bride is employed at Pine Valley Food Market and the groom is attending Knoxville Business College, studying computer technology.

F & M's William Layman Rites Held in Knoxville

William K. Layman, Fabrication and Maintenance Division, died October 27, from an apparent heart attack. He came with ORGDP in 1946.

Born in Sevier County, Mr. Layman served in the U.S. Army during World War II.

Survivors include his wife, Mrs. Nancy Keck Layman, 3419 Keith Avenue Knoxville: daughter, Mrs. Jerry Frances Wood, Tacoma,

Wash .; brothers, Hubert Layman, Kodak; Garfield Layman, Newport; and Pleas Layman, Sevierville; sisters, Mrs. Hattie Fox and Mrs. Debbie Fox, both of Maryville; Mrs. Josie Thomas, Knoxville; Mrs. Dallas Ivy, Sevierville; and a granddaughter, Julie Nancy

the chapel of Weaver Funeral Home, Knoxville. Burial followed in Lynnhurst Cemetery.



Layman

Wood of Tacoma. Funeral services were held at

Oak Ridge National Laboratory

ORNL Editor Martha Goolsby

extension 3-6421



UNITED FUND ACHIEVEMENTS—Ecological Sciences Division was one of four ORNL groups to achieve over 100 percent of goal for the first time. Left to right, ORNL Chairman Fred Maienschein presents achievements plaque to Gerry Ulrikson, division solicitor, and Stanley Auerbach, division director. For other award winners see story.

Congratulations!

19 Divisions, 9 Union Groups Exceed United Fund '71 Goal

The 1971 United Fund drive at ORNL is over. And what can be said but a fine job done by all those who contributed and congratulations to all those who worked so hard in the drive. Nineteen divisions and nine bargaining units achieved over 100 percent of goal. Of these, three divisions and one

bargaining unit were first times achievers of at least 100 percent of goal. The four are Thermonuclear, Glenn Haste, solicitor; Ecological Sciences (see photo); Environment and Technology Assessment, Jacqueline Sims, solicitor; and Machinists, Bob Keil, chief steward.

Following are the groups who repeated performance of past years in going over their goals. Also listed are division solicitors or chief stewards: Boilermakers, Edwin Hines; Laundry Workers, John E. Cornelius Jr.; Biology, Melvin Phillips; Firefighters, J. A. Fields; Leadburners, Tom Rush; Welders, John T. Walker; Instrument Technicians, George liam L. Cox.

Of the divisions, Analytical istry, Richard A. Strehlow; Civil trell, David L. Holcomb, and Defense Project, P. B. Zuschneid; Frank Bayless. Reactor, R. E. MacPherson; Plant and Equipment, Harry H. Nichol; Health, Tom Tuck; Inspection En-Robert L. Smith; General Engineering, Wells Stanley; and Shift Supervisors, Grover C. Cain.

Congratulations for a job well done also go to Claude Long, treasurer; Fred Dewey, who designed signs and posters; Bill Colwell, who coordinated art work and achievement recognition; Leon Smith, who kept signs up to date, and the many men in ORNL ridge.

shops who worked on signs and posters. Thanks to everyone who worked and contributed to make this a successful drive.

Employees who celebrate 20 and 25 years of company service during November are:

Robert H. Beidel, Elizabeth B. Richardson, James P. Jackson, Jo Hamilton; and Iron Workers, Wil- L. Long, Harry C. Savage, Lewis F. Eslick, William L. Tuck, Icie Lee Pogue, Charles E. Cox, Robert Chemistry, C. E. Lamb; Chemistry, B. H. Ketelle; Directors, Wal-C. Hurtt, George Reed, Johnnie ter H. Jordan; Neutron Physics, A. Scales, James W. Brashier, Lorraine Abbott; Reactor Chem-John W. Dabbs, Eugene S. Can-

William F. Vaughan, James A. W. R. Casto; Personnel, B. G. Ca- | Jr., Johnnie Ray Savage, Gorman | tron; Information, Brena Stevens; S. Hill, Jr., William H. Culbert, Budget and Program Planning, Katherine P. Jones, Laura A. Moss, Bill L. Greenstreet, Marie G. Pickard, John J. Manning, Alvin R. Irvine, Martin B. Hunter, George C. Guerrant, Donald L. Gray, Arthur S. Dworkin, Paul E. Easter, Herbert W. Hoover, William T. McDuffee, Jr., Elizabeth B. Howard, and Reginald Ethe-



RIDE from Kentucky Avenue in Oak Ridge to East Portal, 8:15 a.m. Gus Testerman, 3-6731, or 482-2350

RIDERS from Walker Springs or Cedar Bluff area to West or North Portal, 8:15 a.m. Jackie Sims, 3-1732 or 588-7569.

JOIN CAR POOL from Yarnell Road, Route 2, Concord, to 6025. Mary Nicholson, 3-6944.

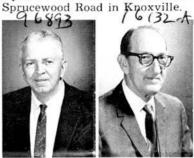
RIDE or join car pool from South Knoxville or UT area to Y-12 North Portal, 8 a.m. Barbara Graunke, 3-7765, 3-7766 or 573-

JOIN CAR POOL from North Knoxville (Washington Pike area) to South or East Portal, Maurice Allen, 3-6766.

Current Retirees Take 166 Years of Service!

Seven ORNL employees will be retiring December 1. Congratulations to the following employees. Their combined employment totals over 166 years.

Henry J. Buttram is a staff engineer in the Electromagnetic Separations Section of Isotopes Division. He joined ORNL in April of 1944. He lives at 3424



Buttram

Gault

Charles A. Gault came to ORNL in August of 1943. Presently he is an associate development engineer in Physics Division. He lives at Route 17 in Knoxville.

Frederick T. Howard is a research staff member in Physics Division (formerly of Electronuclear Division). His joining ORNL in April of 1949 was a return to Oak Ridge. He was here from July 1943 through the War in calutron development with Tennessee Eastman. He lives at 108 Norris Lane in Oak Ridge /2-7



Howard

Littlefield

Frederick E. Littlefield is an insulator in Plant and Equipment Division. He came to ORNL in March of 1950. He lives at Route 4 in Lenoir City.

Albert J. Metzguer entered ORNL employment in February gineering, P. S. Lee; Operations, Barker, Robert E. MacPherson, of 1944. He is a boilermaker in lives at 1504 Old Niles Ferry Road Division, who died November 11. He



Metzguer



ROBERT J. GRAY with Award-winning Photomicrographs.

ORNL Metallurgists Awarded Six Prizes

Oak Ridge National Laboratory Houston won second prizes for microscopists, those who specialize in unveiling the structure of fields at the International Micromaterials by photographing specimens through microscopes, have recently won six prizes for ex-meeting, a Best in Class for transcellence in their art. All the winners are members of the Laboratory's Metals and Ceramics Divi-

Robert J. Gray of Oak Ridge, supervisor of the ORNL Metallography Labs, won the Francis F. Lucas Award for Excellence in Metallography. This is the Grand Prize in the Metallographic Exhibit of the National Metal Congress and Exposition of the American Society for Metals. He received a certificate and a \$500 cash award which were presented at the Society's annual meeting in Detroit, October 18-21.

Gray's winning entry was based upon his improvement of the "magnetic etching" technique which allows investigators to actually see some magnetic structures of steel welds at magnifications up to 1500X.

This is the fourth Lucas Award to be won by the Metallography Group of ORNL in the 26-year history of the prize. No other institution has won it so many

Also winning awards at the Detroit meeting were Kenneth Farrell, research staff member, and John T. Houston, a senior technician. They received Best in Class for transmission electron microscopy and Honorable Mention in replication electron microscopy. Farrell is from Oak Ridge; Houston lives in Crossville.

A month earlier Farrell and

lives at 5020 Fennel Road in Knoxville.

Lawrence G. Phelps is a senior lab technician in Thermonuclear Division. He entered ORNL employment in March of 1948. He

Maryville.

Taylor is a senior technimagnetic Separations Section of Isotopes Division. He came

exhibits in each of these two structural Analysis Society Meetmission electron microscopy was won by another ORNL team, research associate Ralph E. Gehlbach of Knoxville, and technical assistant Sylvester Cook, of Oak

Scott McAmis Funeral Held in Lenoir City

We extend sympathy to the family and friends of Scott Mc-Amis Jr., who died November 13 at Loudon Memorial Hospital. Mr. McAmis was a machinist in Plant and Equipment Division and had been employed at ORNL for 23

Funeral services were held at



the Johnson Memorial First Church of God in Lenoir City and burial followed at Lakeview Cemetery.

A native of Lenoir City. Mr. McAmis was an avid hunter and

Scott McAmis fisherman and he operated a small machine shop at his home. He was also extremely active in the Johnson Memorial First Church of God in Lenoir City. He is survived by his wife Mickey and two sons Ralph Dwight and

Consultant Kooistra Dies En Route to Oak Ridge

We extend sympathy to the family and friends of Lambert F. Kooistra, consultant to Reactor He was en route to Oak Ridge William Kyle from a business trip when striken.

Kooistra had lived in Oak Ridge since 1967 when he retired from cian in Electro- Babcock and Wilcox Research Center at Alliance, Ohio.

Services were held November 13 at Weatherford Mortuary. He to ORNL in is survived by his wife Mary El-July of 1953. len; two sons Frank of Akron, He lives at Ohio, and John Edwin of Ithaca. Route 2, Jacks- N. Y.; and a daughter Karen Mae Schueler of Akron.



Taylor

Boggs, Forsythe, Finchum, Oglesby Retire; Mrs. Gentry Ends Y-12 Career

Five Y-12ers retire at the end of November: Thomas L. Boggs, Buildings, Grounds and Maintenance Shops; Roy L. Forsythe, Graphite Shop; John A. Finchum, Utilities Administration; Clyde T. Oglesby, Buildings, Grounds and Maintenance Shops; and Mrs. Asa Tarwater Gentry, Statistical Services and SS Control, retire November 30.



Forsythe



Finchum

Oglesby

Thomas L. Boggs, a native of Calhoun, S. C., came to Y-12 February 17, 1953. He did carpentry, pipefitting and farming near Central, S. C. and worked in Los Angeles, Calif., West Point, Ga., and Birmingham, Ala. before coming here.

He lives at Route 3, Clinton with his wife, the former Mildred Mitchell. They have a daughter Joan Boring, Mt. Clement, Mich., and a son, Robert L. Boggs, Greenville, S. C.

Forsythe

Roy L. Forsythe, born in Jackson, came here December 18, 1950. He worked on a farm near Sikeston, Mo. in the late 40's and worked as a welder with Emerson Electric Co., St. Louis, and the U.S. Cartridge Co., and Wagner Electric Corp. until coming here.

Mrs. Forsythe is the former Ruth Bushhart. They have a daughter, Mildred Hickman, Clinton, a son Travis, Carlton, Mich., and Elton, St. Louis; and sons Gerald and Alvin, Clinton.

He plans to do truck-farming on his 16-acre farm near Clinton when he retires.

Finchum

John A. Finchum, born in Dandridge, worked at Oak Ridge Gaseous Diffusion Plant, and Y-12 on two different stints. He transferred from ORGDP in 1963, and his original employment date goes back to 1943.

The Finchums live at 460 West Outer Dr. She is the former Nelle Stepp. They have a daughter Carolyn Del Grande (married to Ed Del Grande, with Union Carbide in Charleston, S. C., and a former Y-12er); and a son John A., Jr.,

Finchum says he plans to live in Oak Ridge in retirement and "enjoy life."

Oglesby

Clyde T. Oglesby was born in Knoxville, and served in the Air Force during World War II. He came to Y-12 May 7, 1946, after working with Monsanto Chemical, here in Oak Ridge and Variety Aircraft, Dayton, Ohio; and Shamblin and Oglesby, Knoxville.

The Oglesbys live at 1526 Wil-



Rider wanted from Pleasant Ridge Road to North or Central Portal, straight day. Larry Bohanan, plant phone 3-5101, home phone Knoxville 524-7189.

Ride wanted from East Knoxville (Three miles west of 4-Way Inn) to North or Central Portal, straight day. T. A. Collins, plant phone 3-5438, home phone Knoxville 546-7187.

Ride wanted from Milligan Heights, located between South Clinton and Claxton, on Highway 25W, to North Portal, straight day. Faye Young, plant phone 3-7351.

Ride wanted from 122 Viking Road, Oak Ridge, to East Portal, straight day. Sarah Coram, plant phone 3-5226, home phone Oak Ridge 483-7534.

Ride wanted or will join car pool from South Knoxville, or UT area to North Portal, straight day. Barbara Graunke, extension 3 7765, phone Knoxville 573-3913.

Y-12's C. F. Blaha Dies At Oak Ridge Residence

Charles F. Blaha, Y-12's Alpha Five Processing, died November 11 from an apparent heart attack.



He was home, at 101 Taylor Road, Oak Ridge, on vacation at the time of his death.

Mr. Blaha came with Union Carbide June 30, 1945, after working

with Glenn L. Martin, Baltimore, and the Richmond Engineering Company, Richmond, Va.

He is survived by his wife, Mrs. Bess Moore Blaha, and a daughter, Sharlee Josephine, at home; and a son, Joseph C. Blaha, in the U. S. Navy; two sisters, Mrs. George Lisson, Baltimore, Md., and Mrs. William Blanchard, Falls Church, Va.; and a brother John R. Blaha, Colonial Heights, Va.

Funeral services were held at Martin Funeral Home, with the Reverend Joseph Julius officiating. Burial followed in Oak Ridge Memorial Park.

Force at Lackland Air Force Base, San Antonio, Tex.

Mrs. Gentry

Asa Gentry, nee Tarwater, came to Y-12 back in the early days,



Mrs. Gentry

also, hiring in December 27, 1943, after a two year stay in the Women's Army Corps She served in Cheyenne, Wyo., in the Wac's. A native of Sevierville,

she attended

Tennessee Wesleyan College. Her husband William died in 1969

She lives at 162 Northwestern son Road, Knoxville. She is the Avenue, Oak Ridge, and plans to former Verda Hampton, and they continue living there in retirehave one son Samuel, in the Air ment, enjoying housekeeping.

F. K. Clabough Victim Of Fatal Heart Attack

Fred K. Clabough, General Machine Shop, died on the golf course in Knoxville, November 13, from a heart attack.

Born in Blount County, Mr. Clabough worked with the Patent

Button Company and Myers Whaley, both in Knoxville, before coming to Y-12 February 21, 1950. He was a steward for the Atomic Trades and Labor Council

Clabough Survivors include his wife, Mrs. Lucille Haven Clabough, at home at 141 Highland Avenue, Oak Ridge; sons, Kenneth, Greenback; and Don, Maryville; daughter, Mrs. Linda Palmer, Oak Ridge; stepsons, Jim and Gary Morton, Maryville; stepdaughters, Mrs. Lillian Lonas and Mrs. Roma King, both of Maryville; sisters, Mrs. Gladys Harrison, Knoxville; and Mrs. Mary Smith, Maryville; brothers, Raymond, Memphis; Edward, Dallas, Tex.; and Paul, Maryville; and 15 grandchildren.

Services were held at the Rockford Methodist Church, with the Reverend J. Monroe Ball officiating. Burial followed in the Sherwood Memorial Gardens, Mary-

Yule Dance Slated By P E & S, Dec. 23

night before Christmas," says the Product Engineering and Scheduling Division in Y-12. That's when PE & S folk plan their Christmas dinner dance, to be exact, December 23, at the Oak

Dinner begins at 7 p.m., danc-

Twas the night before the

Ridge Country Club.

Oak Ridge Y-12 Plant

Y-12 Plant Editor James A. Young extension 3-7100

Eugene Boyd, a tool designer in A-2 Shops, died November 8, af- Inspection, died November 15, ter a rather lengthy illness.

A native of Wise County, Va. he came here in January, 1946,

after serving nearly five years in the U.S. Army. The Boyd

home is at 113

South Purdue

Avenue, Oak

Ridge, where his wife, the former Juanita Parker, sur-He is survived also by a son, Roger W. Boyd, Clinton, also Y-12 employee; two daughters, Mrs. Sandra Beall, Atlanta, Ga.,

and Cathy, at home; two brothers, Hugh and Don Boyd, both of Kingsport; and sisters, Mrs. Peggy Wilson, Concord; Mrs. Billie Roberts, Kingsport; and Mrs. Ann Guy, Johnson City. Funeral services were held at the graveside in Anderson Me-

morial Gardens with the Reverend William Fowler officiating. The family requested that any memorials be in the form of contributions to the American Cancer Society, in care of Mrs. Don-ald Aubuchon, 408 Greenwood Dr., Clinton.

Tickets (cost \$14 per couple) are available in 9103 from Bob Letellier, Jerry Babby and Brenda Stair; in 9204-4 from Merle Emery; in 9201-5 from Carolyn Mc-Donald; in 9212 from Judy Keeney; in 9215 from Virginia Newby; and in 9704-2 from Lynn ing to the tunes of The Counte V Eason. Emery and Babb are cochairing the event.

Eugene Boyd, A-2 Shops, Oak Ridge Rites Held Is Victim of Long Illness For Inspection's Brown

James D. Brown, Dimensional



here January 8, 1951, after working in various plants in Birmingham and Bessemer, Ala. He was a native of Brompton, Ala. Survivors in-

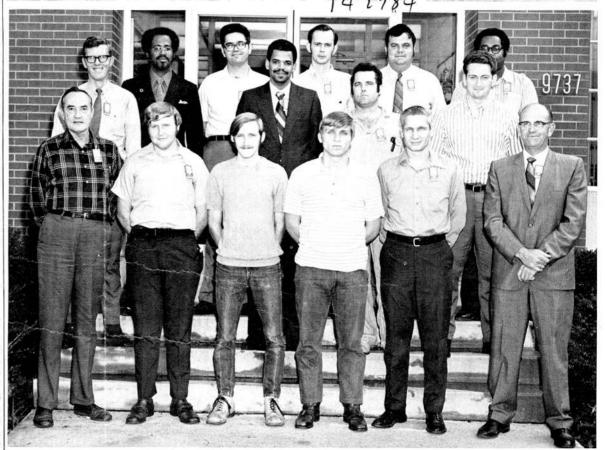
clude his wife, Mrs. Hazel Brown, sons, Noel and Derek Brown, at home at 9100 Joy Lane in the Burchfield Community; daughters, Mrs. Janara Whitson, Middlesboro, Ky., and Mrs. Judith Whitson, Knoxville; sisters, Mrs. Clarsie Wynn, Tusculoosa, Ala.; Mrs. Lois Hardeman, Mrs. Charlsie Turner, and Mrs. Mary Barrett, all of Birmingham; and six grandchildren.

Funeral services were held at the chapel of Weatherford Mortuary with John Waddy officiating. Interment followed in the Oak Ridge Memorial Park.

SAFETY SCOREBOARD

The Y-12 Plant Has Operated 33 Days Or 1,229,000 Man-Hours (Unofficial Estimate)

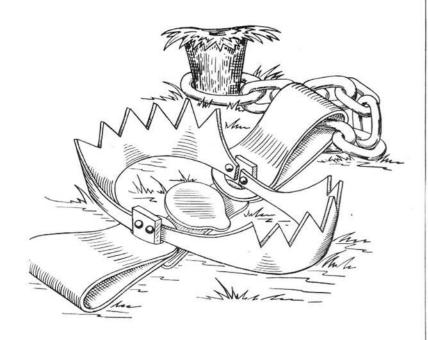
Through November 21 Without A Disabling Injury SAFETY AT HOME, AT WORK, AT PLAY



JOURNEYMEN NOW-Y-12 recently saw 13 apprentices graduate as journeymen in Electrical and Electronics. They are seen above at "graduating" rites. From left in the front row are Charles E. Robinson, a member of the general apprenticeship committee representing the Atomic Trades and Labor Council; Garry M. Whitley, Charles M. Cook, Dannie W. Richards, L. Dennis Cumpton, and J. W. Ebert, superintendent of the Maintenance Division. In the center in the second row are Michael J. Moore, Billy N. Chadwick and Thomas E. Copeland. In the back row are Warren C. Lavender, William L. Every, Benny J. Henderson, Jerry N. Ferguson, Clovis A. Cooper, Jr.; and John R. Jordan. Moore, Lavender, Every, Cooper and Jordan are graduates of the Training and Technology Project.

Paducah Gaseous Diffusion Plant

Paducah Editor Keith Bryant extension 369



15 Trainees Begin FIT's New Program in Paducah

operations recently in the Paducah Plant. A total of 15 men reported for instruction in mechanical operations. They will cover subjects such as welding, hand tools, mathematics, blueprint reading, power tools, safety and communications. The course will last 26 weeks.

FIT was originated to train the disadvantaged for skilled industrial jobs, and is funded by the U. S. Department of Labor, the Atomic Energy Commission and the state of Kentucky.

Next month, a second class of 15 will begin 41 weeks of training in electromechanics. Their first 15 weeks will be spent at West Kentucky Area Vocational School, stressing mathematics and basic AC and DC theory. This will be followed with 26 weeks of "hands on" training at the Paducah Gaseous Diffusion Plant.

FIT is a "spin-off" of the Train- appointments.

Functional Industrial Training (TAT) at the Oak Ridge Y-12 (FIT) began its second year of Plant. The success of both schools has been phenomenal. More than 95 percent of the graduates in the programs are gainfully employed in full-time jobs.

> Enrolled in the new FIT program at Paducah are Bernard Anselm, Randall Kepner, Gerald Barnett, Douglas Pearson, William Brewer, Bruce Romaine, Stanley Campbell, Jimi Shaw, Ozean Dodd, Ronnie Smith, Harry Forbes, Weldon Stokes, Robert Hunter, Edward Rice, and Vernard Irish.

TAX HELP

An income tax advisory service will again be offered Paducah Plant employees by the Industrial Relations Division.

Employees may call Chris Cawood, PAX 324, or Bell 369, for



DANCE COMMITTEE—Busy preparing for the big Paducah Plant Dance December 3 are the above employees. The event is slated at the Chamber of Commerce Convention Center, with dancing from 9 to 1 a.m. next Friday. From left are Robert Grant, Keith Bryant, Ray Fields, Wayne Lyles, Jeff Vandeven and Ardyce Ballard. Not seen in the photograph were Barbara Hook, Marianne Curtis and John Hester.

Committee Busy Planning Big Dance Set in Paducah Friday, December 3

. . . that's what Paducah em- Jeff Vandeven, Ardyce Ballard, has appeared in many major cities ployees are calling the upcoming Barbara Hook, Marianne Curtis in this country and in foreign Committee members Robert Grant, Keith

Secretaries-AMS Plan Seminar December 4

The Paducah - Kentucky Lake Chapter of the National Secretaries Association and the Administrative Management Society are jointly sponsoring a seminar next week. The seminar will be moderated by Yvonne Lovely, from Oak Ridge National Laboratory. Theme of the meeting is "Bosses and Secretaries Tell It Like It Is."

The meeting will be Saturday, December 4, from 8:30 a.m. to 3 p.m. at the Cabana Club.

Reservations should be made through Betty Green, PAX 782 or Bell 325. The cost, including lunch, will be \$10.

APPLICATION FORMS

Application forms for the Christmas party for children are available in the personnel office. Those who failed to clip theirs from the ND News may obtain them from the receptionist.

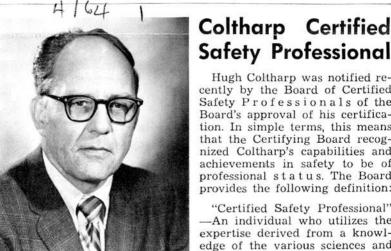
and John Hester are all busy planning the popular event.

This year's holiday dance will be held at the Chamber of Commerce Convention Center (formerly the Jaycee Civic Center) at the intersection of Thompson and Park Avenues. Dancing is set from 9 p.m. to 1 a.m., Friday, December 3.

Black Combo, featuring the Origi- the night of the dance.

The Big social event of the year∳Bryant, Ray Fields, Wayne Lyles, nal Memphis Sound. This group countries. Their record albums have sold over 15 million copies.

Door prizes and other attractions are being prepared by the committee. Advance tickets are now on sale in every division in the plant. They will be \$1.75 per person in advance, \$2 at the door. Tickets that are not sold prior to the dance will be put on sale at The dance will feature the Bill the Convention Center at 8 p.m.



Hugh Coltharp

KETV Open House Huge Success in Lexington, Ky.

The Kentucky Educational Television Production Center, recently brimmed over with visitors at its open house. The center, a vital link in the Kentucky Training and Development Foundation's program of continuing education for adults in industry, government and business, featured "Sesame Street," and for the older persons there was "Kentucky is My Land."

The KETV facilities in Lexington are used extensively in adult education during the out-of-school hours in presenting programs generated from the T & D Foundation, which is chaired by Robert A. Winkel, superintendent of the Paducah Plant.

The open house was held to inform people of the service and programs KETV provides for a cross section of Kentucky through its 14 transmitters, and even in neighboring states of Tennessee, West Virginia, Ohio, Indiana, Illinois and Missouri.

Hugh Coltharp was notified recently by the Board of Certified Safety Professionals of the Board's approval of his certification. In simple terms, this means that the Certifying Board recognized Coltharp's capabilities and achievements in safety to be of professional status. The Board provides the following definition:

"Certified Safety Professional" -An individual who utilizes the expertise derived from a knowledge of the various sciences and professional experience to create or develop procedures, processes, standards, specifications and systems to achieve an optimal control or reduction of the hazards and exposures which are detrimental to people and/or property by the utilization of analysis, synthesis, investigation, evaluation, research, planning design and consultation.

Coltharp's safety training and experience has been strong in the areas of fire prevention, driver training, and in training both foremen and their men in safe job performance. He attended the National Safety Council's Defensive Driving Instructor's Course and the National Safety Council's Safety Training Methods Cour

Coltharp has also extended his work beyond his on-the-job activities. He is a director of the Four Rivers Safety Council, conducted a Defensive Driver's Course (DDC) Instructors class for the Four Rivers Safety Council, organized DDC classes in several of the area schools, and is Chairman of the Greater Paducah Chamber of Commerce's Committee for Safety.



NEW FIT STUDENTS-Function Industrial Training (FIT) began its second year recently at Paducah with 15 new students enrolled, from left, Lawrence B. Milliken, counselor; Roger F. Hunt, instrument; and students, Bernard Anselm, Randall Kepner, Gerald Barnette, Douglas Pearson, William Brewer, Bruce Romaine, Stanley Campbell, Jimi Shaw, Ozean Dobb, Ronnie Smith, Harry Forbes, Weldon Stockes, Robert Hunter, Edward Rice, Vernard Irish, and J. B. Barron, instructor.

What Is Diabetes?

By T. A. LINCOLN, M.D.

Since November 14-20 was Diabetes Detection Week, this is a good time to ask the question, "What is diabetes?" The answer, even for the experts, is not easy.

Diabetes mellitus is a genetically determined disorder of metabolism characterized by an absolute or relative deficiency of the hormone insulin. This prime storage hormone conserves the major metabolic fuels, carbohydrate, fat, and protein. A patient with diabetes in its worst form has an elevated blood sugar (glucose) even after fasting for 8 to 12 hours, a proneness to atherosclerotic vascular disease, such as coronary heart disease and damage to the kidneys, eyes, and nerves. In the past, diabetes had been thought to be



Dr. Lincoln

only a disorder of sugar metabolism but now it is realized that many other manifestations may occur with only a mild sugar intolerance.

Four-Stage History

The natural history of diabetes can be divided into four stages. The earliest stage is prediabetes and exists from birth in a person who has inherited the tendency. Unfortunately, there are no easy tests to determine who has this predilection. Individuals thought to be genetically prone, for example, children of two diabetic parents, may

have a defect in the release of insulin and sometimes abnormalities in their tiny blood vessels can be seen.

The next earliest stage is subclinical diabetes. Here, also, all the blood sugar tests are normal. But a weakness may be detected during a period of metabolic stress. For example, during pregnancy an abnormality of glucose tolerance may develop, which disappears after the birth of the child. By giving cortisone to a subclinical case, a transitory defect in glucose tolerance can often be uncovered.

The stage preceding clinical diabetes is called latent diabetes. The patient has no symptoms but has an abnormal glucose tolerance test. Many cases of latent diabetes are detected during periodic physical examinations where urine and blood sugar determinations are made.

Glucose Tolerance Test

Testing the urine for sugar is the least sensitive test for diabetes. When sugar is found, a follow-up glucose tolerance test is necessary. Many mild diabetics do not regularly excrete sugar in their urine. The next most sensitive test is the fasting blood sugar. If elevated, diabetes can be strongly suspected. Frequently, however, a blood sugar will return to normal overnight.

If the blood sugar is markedly elevated after a meal, diabetes may be present. A much better test is to fast for 12 hours, measure the fasting blood sugar and then eat 100 grams of glucose. Two hours later a second blood sugar is determined. If too high, diabetes is likely.

The final diagnosis usually depends on the glucose tolerance test, during which a fasting blood sugar is determined and a measured amount of glucose (most often 100) grams is eaten. Blood and urine sugar determinations are done at one, one and one-half, two, and three hour intervals. If the blood sugar rises too high in one hour or remains too high at two or three hours, a diagnosis can be made. In all cases, the patient must have been on a diet rich in carbohydrate for at least three days before the test.

Heterogenous Disease

Diabetes is an extremely heterogenous disease. In young people, juvenile diabetes often appears quite suddenly and must be treated with insulin the rest of the patient's life. Maturity onset diabetes in adults is often mild and can be definitely worthwhile. If treatcontrolled with diet alone.

The involvement of the kidneys, eyes, nerves and the vascular system is highly variable among diabetics and is not preventable complications. There directly related to the severity of the disturbance in the is no justification for the cynical carbohydrate metabolism. Those who are lucky and inherit rejoinder: "My fate is predeteronly the sugar disorder, even though severe, may live out mined. Careful treatment won't almost normal life expectancies. Sometimes, those who inherit influence it." Miracles may not a broad defect may suffer involvement of many organ systems | be possible but indifference inin spite of good control of the sugar disorder.

Both genetic and environmental factors are important in ished vigor and premature disdiabetes. The most important environmental factor is obesity. | ability.

Knoxville Zoo Seeking Membership Assistance

Knoxville's Municipal Zoo is getting a facelifting and each area resident has a chance to participate in the "new" zoo. Under the direction of Guy Smith III since last April, many new young animals and enclosures have been purchased. The children's petting zoo operated on weekends during the summer, has received a warm reception from the public. Enthusiastic volunteers and zoo keepers have assisted in all endeavors.

Important to this growth has been the establishment of the Appalachian Zoological Society, a non-profit organization with a strong board of directors who are pledged to the betterment of the new zoo. Land has been acquired, and exciting plans are on the drawing board for the near fu-

The public is invited to participate by purchasing memberships in the Society. Annual dues begin at \$5 for the student and range upwards to corporate memberships. Membership forms may be obtained from the Appalachian Zoological Society, Box 283, Knoxville attn. John Ellington, membership chairman. Dr. William L. Patterson is chairman of the Board of Directors.

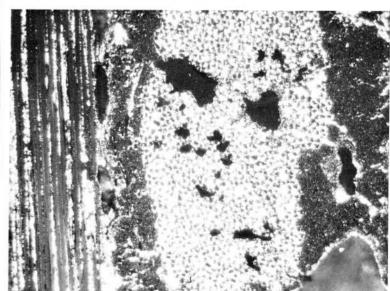
Feasibility studies by a nationally known architect indicate that Knoxville could have one of the finest zoos in the South and the visitor index affirms this

The zoo at Chilhowee Park is a busy place these days. Work is progressing on new quarters for Old Diamond, giant African bull elephant. Twelve Guinea baboons, a gift of the Brookfield Zoo in Chicago, will arrive soon, making Knoxville one of three zoos in the nation with such a family collection. Lecture classes from The University of Tennessee tour the zoo and local school children come for field trips. Plan to visit the zoo in the near future and give your support to the Appalachian Zoological Society.

Sixty percent or more of maturity onset diabetics are obese. An 'heritability" index can be used to express the relative influence of genetic and environmental factors. A disease which is 100 percent genetic would have an heritability index of 100 percent while an entirely environmental disease would have an index of 0. In young diabetics, the heritability index is 70 to 80 percent while in adults over 55 it is only about 30 to 40 percent.

Obesity in normals and in prediabetics is characterized by a diminished responsiveness to insulin. The enlarged fat cell is unable to take up glucose unless it has extra insulin. Obesity therefore greatly increases the need for insulin. If there is a genetic weakness, a relative insulin deficiency develops and diabetes occurs.

Early detection of diabetes is ment is followed carefully, the patient feels better and avoids evitably takes its toll in dimin-



SEASONAL SPOOK-This "thing" showed up on the electron microscope at the Y-12 Plant just in time to join the rest of the goblins at Halloween. The sample of carboncarbon composite was gathered by Jackie L. Cook, the photo by William C. Pullen, both of the Development Divi-



ALL-CARBIDE

be mailed from the ORNL Recreation Office. However, if you desire you may pick up your tickets from the Recreation Office in vour area.

Recreation is in the process of setting up informal badminton at the old Jefferson Junior High gym on Thursday nights. Announcements will be posted as soon as arrrangements are completed.

Twenty teams have entered the Carbide Basketball League. This is the first time the league has been split into two leagues with 10 teams in each league for uniform competition.

The season begins on November 29. All games will be played at the Oak Ridge High School gym on Monday and Wednesday nights.

Volleyball league play begins December 2 at the Oak Ridge High School gym. Fourteen teams have entered league play.

Entries for the table tennis leagues are now being accepted. The season, to be played on Monday nights at the Civic Center, will begin soon.

Final results from the Smallbore Rifle Indoor League show F. M. Barnes, ORNL, with a 293 score to win. Second went to R. J. Spurling, Y-12 with 289 and tied for third with 288 were E. T. Johnson Jr. and J. L. Huff, both of Y-12. In match 6, F. M. Barnes repeated his win with a 295 score. J. L. Huff and R. J. Spurling tied for second honors with 290s.

The Carbide Winter Pistol League will meet December 7 for organization at the Oak Ridge Sportsmen's Association. Interested employees should contact the Recreation Office, 3-6723, or Richard Gwaltney, 3-5364.

In Carbide Family Mixed bowling the Oops team remains out front. In their November 12 play high individual scratch honors went to Walt Joest, Oops, with a 223 and Elaine Griffies, Pinsetters, with a 214. The Pinsetters with a 2391 took high series with handicap.

ORNL BOWLING

In November 8 play Pockets of A League took high team series with handicap. Other honors went to Bob Lampton, Pockets, with a 233 for high game scratch; J. Harris, Tailenders, with a 252 spectively.

high game with handicap; and All Christmas party tickets will Paul Davis, ORAU, with a 679 for high series with handicap.

In November 10 play Pin Heads of C League took high team series with handicap. Other honors went to R. L. Clark, Remkeys, with 233 for high game scratch; N. W. Hill, Pin Heads, for a 252 high game with handicap; and R. A. Vandermeer, Beryls, for a 687 high series with handicap.

In November 9 play Gutterfinks rolled a 2916 for high team series with handicap. Other honors went to Montgomery, Limits, wiht a 214 high game scratch; Rigopoulas, Gutterfinks, with a 258 high game with handicap; and Craig, Mets, with a 670 high series with handicap.

In November 2-3 play the HPettes of the Ladies League rolled a 2221 for high team series with handicap. Other honors went to Phipps, Mousechasers, with a 191 high game scratch and a 230 high game with handicap and Vest, Pick-Ups, for a 643 high series with handicap.

Y-12 BOWLING

In November 8 play the C League Sunflowers rolled a 3213 high team series with handicap. Other honors went to Hummel, Badgers, with a 243 high game scratch; F. Felte, Purple Pygmies, with a 261 high game with handicap; and May, Fireballs, with a 725 high series with handicap.

In November 11 Classic League play Has Beens rolled a 3221 high team series with handicap. Craven, Bumpers, took high scratch with a 267 and high game with handicap with a 295. Lendon, Has Beens, took high series with handicap with a 628.

With three more weeks to go in the first half, Y-12 Mixed Bowlers see the Alley Cats with 30 wins, 14 losses, followed closely by the Rollers (27 wins) . . . so it's still too close to call.

ORGDP BOWLING

In November 9 play in the ORGDP Women's League the bowler of the week was Dixie Stinnett with a scratch series of 475 and handicap series of 613. High game scratch and handicap went to Peggy Harris with a 198 and 235. The top contenders, the Up-Towners and Pay-Offs, met for the match of the week. Their scores were 2155 and 2158 reBULK RATE
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NEW COMMISSION—Members of the Atomic Energy Commission are seen, standing from left, William O. Doub and Clarence E. Larson. Seated are James T. Ramey, Chairman James R. Schlesinger, and Wilfrid E. Johnson. Commissioner Doub and Chairman Schlesinger were appointed to the five-member Commission by President Nixon in July of this year, and were sworn in on August 17.

CALENDAR OF EVENTS



TECHNICAL November 29

Physics Division Seminar: "Pleochroic Halos: Sweden and France Revisited," Francis G. Perey, Neutron Physics Division. East Auditorium, Building 4500N, 3 p.m.

Instrumentation and Controls Division Seminar: "The Pyroelectric Thermometer: A Sensor for Measuring Extremely Small Temperature Changes or Rates of Temperature Change," Sidney B. Lang, McGill University, Montreal, Canada. East Auditorium, Building 4500N, 2 p.m.

December 1

Metals and Ceramics Division Seminar: "Prestressed Concrete in Nuclear Pressure Vessels," Grady Whitman, Reactor Division. East Auditorium, Building 4500N, 2:30

Chemical Technology Division Seminar on the LWBR Support Program: "Precipitation, Reduction, and Stabilization Parameters in the Production of ²³³UO₂," J. M. Leitnaker, Metals and Ceramics Division; "Equipment Design for ²³³UO₂ Production in Building 3019," J. W. Snider. Central Auditorium, Building 4500N, 3 p.m.

December 2

Biology Division Seminar: "Expression of Cell Surface Antigens in Lymphoid and Plasma Cell Tumors," Robert A. Hyman, Salk Institute. Large Conference Room, Building 9207, 3 p.m.

Instrumentation and Controls Division Annual Information Meeting: Central Auditorium, Building 4500N, 9 a.m.

No previous acting experience is required for the play, an original drama from the American Playwright's Theater.

December 6-8

GeMSAEC Fast Analyzer Workshop. Oak Ridge National Laboratory.

December 7-8

Thermonuclear Division Information Meeting, Oak Ridge National Laboratory.

December 8

Chemical Technology Division Seminar on the LWBR Support Program: "Flowsheet Development for ²³³U Purification," R. H. Rainey; "Equipment Design for ²³³U Purification in Building 3019," F. E. Harrington. Central Auditorium, Building 4500N, 3

December 13

Biomedical Graduate School Seminar: "Types of Recombination of the Sex Factors with the Chromosome and Other Sex Factors," P. M. A. Broda, University of Edinburgh. Large Conference Room, Building 9207, 3:30 p.m.

December 15

Metals and Ceramics Division Seminar: "Examination of ALCO/ BLH Steam Generator," Pete Patriarca. East Auditorium, Building 4500N, 2:30 p.m.

PLAYHOUSE TRY-OUTS

Try-outs for "A Perfect Gentleman" will be held at the Oak Ridge Playhouse 7:30 p.m., December 13.

Needed for the cast will be seven men, between 23 and 60, and three women from 25 to 50.

State of Laboratory Address Set Dec. 17

ORNL Director Alvin M. Weinberg will present the annual "State of the Laboratory" address Friday, December 17, at 8 p.m. in the Oak Ridge High School auditorium. Immediately following the address, refreshments will be served in the ORHS cafeteria. Union Carbide Corporation's Nuclear Division will be host.

Surplus Property Sales Posted for Next Month

Two surplus property sales are announced which include several electric hoists, welding equipment, drill presses, and other miscellaneous items consisting of fans, scales and power tool parts.

Bids on one lot sale will be opened on December 8; and on the other December 14.

The equipment may be seen Monday through Friday, between the hours of 8:10 a.m. and 4:15 g.m., and Saturdays, with the extional health.

ception of November 25 and 26 (plant holidays).

Bid opening for both sales has been changed to 10 a.m.

HALOGENS HINDER HAZARDS

New halogenated solvents, developed through chemical progress, are rapidly replacing highly flammable materials once used in dry cleaning and metal cleaning solutions. They dramatically reduce the danger of fire, explosion, and other hazards to occupational health.

Apply Now for Parties For UCC Children

Response to the Oak Ridge and Paducah Christmas parties for children has been healthy, to say the least. Paducah's party is set for Saturday, December 11, at 9:30 a.m. in the Arcade Theater.

Oak Ridge parties will be held December 22, at 9 and 11 a.m., at 1:30, 3:30 and 5:30 p.m. at the Oak Ridge High School auditorium. Application for the Oak Ridge parties is run for the last time below.

Application for Tickets To Christmas Parties

FOR CHILDREN OF OAK RIDGE UNION CARBIDE EMPLOYEES
(AGES TWO-10 ONLY)

WEDNESDAY, DECEMBER 22

		Plant
Employee's Name		. Badge No
Home Address		
Plant Address		
Number of Tickets (Cl	hildren)	
Number of Tickets (Ad	dults)	
· ·	- CHECK TIME PREFE	RRED —
Wednesday, December 22	9 A.M 11 A.	M1:30 P.M
Only	3:30 P.M	5:30 P.M.
Please check first and	second choice (write in	space "1" or "2") as only a lin

Please check first and second choice (write in space "1" or "2") as only a limited number of tickets will be issued for each party. Preference will be given early applicants and if tickets for first choice are exhausted, tickets for second choice will be issued.

Return this form, properly and completely filled in, to the Carbide Recreation Office, Building 4500, Wing 5, ORNL. Please apply for tickets before December 17. The required number of tickets will then be mailed to parents at their home or plant addresses.

THE SOUTH OF THE STANDERS OF THE STANDERS OF THE SOUTH OF